WHAT IS CLAIMED IS:

1. An arithmetic performance attribution method for determining portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, comprising the steps of:

5   (a) determining coefficients $c_1 = A$, and $c_2 = \left[\dfrac{R - \overline{R} - A\sum\limits_{jt} a_{jt}}{\sum\limits_{jt} a_{jt}^2} \right]$,

where A has any predetermined value, a_{jt} is a component of active return, the summation over index j is a summation over all components a_{jt} for period t,

$R = [\prod\limits_{t=1}^{T}(1+R_t)]-1$, $\overline{R} = [\prod\limits_{t=1}^{T}(1+\overline{R}_t)]-1$, R_t is a portfolio return for period t, $\overline{R}_t$ is a

10   benchmark return for period t, and the components a_{jt} for each period t

satisfy $\sum\limits_{j} a_{jt} = R_t - \overline{R}_t$; and

(b) determining the portfolio performance as $R - \overline{R} = \sum\limits_{it}\left[c_1 a_{it} + c_2 a_{it}^2\right]$, where the

summation over index i is a summation over all the terms $(c_1 a_{it} + c_2\, a_{it}{}^2)$ for period t.

15   2. The method of claim 1, wherein A is

$$A = \frac{1}{T}\left[\frac{(R - \overline{R})}{(1+R)^{1/T} - (1+\overline{R})^{1/T}} \right], \; where \; R \neq \overline{R},$$

or for the special case $R = \overline{R}$:

$$A = (1+R)^{(T-1)/T}.$$

20   3. The method of claim 1, wherein A = 1.

4. An arithmetic performance attribution method for determining portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, comprising the steps of:

25   (a) determining a set of coefficients c_k, including a coefficient c_k for each positive integer k; and

(b) determining the portfolio performance as $R - \overline{R} = \sum_{it} \sum_{k=1}^{\infty} c_k a_{it}^k$, where a_{it} is a

component of active return for period t, the summation over index i is a summation

over all components a_{it} for period t, $R = [\prod_{t=1}^{T}(1+R_t)] - 1$, $\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)] - 1$,

R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for period t, and the

components a_{it} for each period t satisfy $\sum_i a_{it} = R_t - \overline{R}_t$, where the summation over

index i is a summation over all components a_{it} for said each period t.

5. The method of claim 4, wherein A is

$$A = \frac{1}{T}\left[\frac{(R-\overline{R})}{(1+R)^{1/T} - (1+\overline{R})^{1/T}}\right], \text{ where } R \neq \overline{R},$$

or for the special case $R = \overline{R}$:

$$A = (1+R)^{(T-1)/T}.$$

6. The method of claim 4, wherein $c_k = 0$ for each integer k greater than two,

$$c_1 = A, \quad c_2 = \left[\frac{R - \overline{R} - A\sum_{jt} a_{jt}}{\sum_{jt} a_{jt}^2}\right]$$, A has any predetermined value, the summation over

index j is a summation over all components a_{jt} for period t, $R = [\prod_{t=1}^{T}(1+R_t)] - 1$,

$\overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)] - 1$, R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for

period t, and the components a_{jt} for each period t satisfy $\sum_j a_{jt} = R_t - \overline{R}_t$.

7. A computer system, comprising:

a processor programmed to perform an arithmetic performance attribution

computation to determine portfolio performance, relative to a benchmark, over multiple

time periods t, where t varies from 1 to T, by determining coefficients $c_1 = A$, and

$$c_2 = \left[\frac{R - \overline{R} - A\sum_{jt} a_{jt}}{\sum_{jt} a_{jt}^2} \right],$$

where A has any predetermined value, a_{jt} is a component of active return, the summation over index j is a summation over all components a_{jt} for period t, R is

$$R = [\prod_{t=1}^{T}(1+R_t)] - 1, \quad \overline{R} \text{ is } \overline{R} = [\prod_{t=1}^{T}(1+\overline{R}_t)] - 1,$$

R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for period t, and the components a_{jt} for each period t satisfy $\sum_{j} a_{jt} = R_t - \overline{R}_t$, and determining the portfolio

performance as $R - \overline{R} = \sum_{it} [c_1 a_{it} + c_2 a_{it}^2]$, where the summation over index i is a

summation over all the terms $(c_1 a_{it} + c_2 a_{it}^2)$ for period t; and

a display device coupled to the processor for displaying a result of the arithmetic performance attribution computation.

8. The computer system of claim 7, wherein A is

$$A = \frac{1}{T}\left[\frac{(R - \overline{R})}{(1+R)^{1/T} - (1+\overline{R})^{1/T}} \right], \; where \; R \neq \overline{R},$$

or for the special case $R = \overline{R}$:

$$A = (1+R)^{(T-1)/T}.$$

9. A computer system, comprising:

a processor programmed to perform an arithmetic performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining a coefficient c_k for each integer

k greater than zero, and determining the portfolio performance as $R - \overline{R} = \sum_{it} \sum_{k=1}^{\infty} c_k a_{it}^k$,

where a_{it} is a component of active return for period t, the summation over index i is a

summation over all components a_{it} for period t, $R = [\prod_{t=1}^{T}(1+R_t)] - 1$,

$\bar{R} = [\prod_{t=1}^{T}(1+\bar{R}_t)]-1$, R_t is a portfolio return for period t, $\bar{R}_t$ is a benchmark return for

period t, and the components a_{it} for each period t satisfy $\sum_i a_{it} = R_t - \bar{R}_t$, where the

summation over index i is a summation over all components a_{it} for said each period t; and

5   a display device coupled to the processor for displaying a result of the arithmetic performance attribution computation.

10. The computer system of claim 9, wherein $c_k = 0$ for each integer k greater than

two, $c_1 = A$, $c_2 = \left[\dfrac{R-\bar{R}-A\sum_{jt}a_{jt}}{\sum_{jt}a_{jt}^2}\right]$, A has any predetermined value, the summation

10   over index j is a summation over all components a_{jt} for period t, $R = [\prod_{t=1}^{T}(1+R_t)]-1$,

$\bar{R} = [\prod_{t=1}^{T}(1+\bar{R}_t)]-1$, R_t is a portfolio return for period t, $\bar{R}_t$ is a benchmark return for

period t, and the components a_{jt} for each period t satisfy $\sum_j a_{jt} = R_t - \bar{R}_t$.

11. A computer readable medium which stores code for programming a processor to

15   perform an arithmetic performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1

to T, by determining coefficients $c_1 = A$, and $c_2 = \left[\dfrac{R-\bar{R}-A\sum_{jt}a_{jt}}{\sum_{jt}a_{jt}^2}\right]$, where A has any

predetermined value, a_{jt} is a component of active return, the summation over index j

is a summation over all components a_{jt} for period t, $R = [\prod_{t=1}^{T}(1+R_t)]-1$,

20     $\bar{R} = [\prod_{t=1}^{T}(1+\bar{R}_t)]-1$, R_t is a portfolio return for period t, $\bar{R}_t$ is a benchmark return for

period t, and the components a_{jt} for each period t satisfy $\sum_j a_{jt} = R_t - \bar{R}_t$, and

determining the portfolio performance as $R - \overline{R} = \sum_{it} \left[c_1 a_{it} + c_2 a_{it}^2 \right]$, where the summation

over index i is a summation over all the terms $(c_1 a_{it} + c_2 \, a_{it}{}^2)$ for period t.

12. The medium of claim 11, wherein A is

$$A = \frac{1}{T} \left[\frac{(R - \overline{R})}{(1+R)^{1/T} - (1+\overline{R})^{1/T}} \right], \text{ where } R \neq \overline{R},$$

or for the special case $R = \overline{R}$:

$$A = (1+R)^{(T-1)/T}.$$

13. A computer readable medium which stores code for programming a processor to perform an arithmetic performance attribution computation to determine portfolio performance, relative to a benchmark, over multiple time periods t, where t varies from 1 to T, by determining a coefficient c_k for each integer k greater than zero, and

determining the portfolio performance as $R - \overline{R} = \sum_{it} \sum_{k=1}^{\infty} c_k a_{it}^k$, where a_{it} is a component

of active return for period t, the summation over index i is a summation over all

components a_{it} for period t, $R = [\prod_{t=1}^{T}(1 + R_t)] - 1$, $\overline{R} = [\prod_{t=1}^{T}(1 + \overline{R}_t)] - 1$, R_t is a

portfolio return for period t, $\overline{R}_t$ is a benchmark return for period t, and the components

a_{it} for each period t satisfy $\sum_i a_{it} = R_t - \overline{R}_t$, where the summation over index i is a

summation over all components a_{it} for said each period t.

14. The medium of claim 13, wherein $c_k = 0$ for each integer k greater than two,

$$c_1 = A, \; c_2 = \left[\frac{R - \overline{R} - A\sum_{jt} a_{jt}}{\sum_{jt} a_{jt}^2} \right], \; A \text{ has any predetermined value, the summation over}$$

index j is a summation over components a_{jt} for period t, $R = [\prod_{t=1}^{T}(1 + R_t)] - 1$,

$\overline{R} = [\prod_{t=1}^{T}(1 + \overline{R}_t)] - 1$, R_t is a portfolio return for period t, $\overline{R}_t$ is a benchmark return for

period t, and the components a_{jt} for each period t satisfy $\sum_{j} a_{jt} = R_t - \overline{R}_t$ where the

summation over index j is a summation over all the components a_{jt} for said each period

t.